

Atty Docket No.: IDF 1764
(4000-06700)

Patent

REMARKS

Claims 1-15 are currently pending in this Application. By the office action of August 2, 2005, the Examiner has rejected Claims 1-15 on various grounds discussed below. The Applicants respectfully traverse these rejections. Reconsideration is requested.

Claim Rejections - 35 U.S.C. §112

Claims 1-15 were rejected under 35 U.S.C. §112 as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. The Examiner indicated that claim 12 cannot be properly understood because it is unclear what is the relationship between the hub and the "use of a volatile memory". By the present amendment, claim 12 has been amended to recite "storing a message in a volatile memory". Applicant submits that this recitation means the same thing as the original claims language and meets the requirements of 35 U.S.C. §112. The language addresses the use of volatile memory, which is not intended to store data when a device is shut down, to store data across a reboot process which is normally considered a shut down process that deleted data in volatile memory. The Applicants have discovered that in this application, the data can be stored across a reboot process.

Claim Rejections - 35 U.S.C. §103

Claims 1-3, 7, 8 and 12-15 were rejected under 35 U.S.C. §103(a) as being unpatentable over Rasmussen, US Patent No. 6,640,334 in view of Synnestvedt, et al. US Patent No. 6,598,057.

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The Examiner asserts that Rasmussen discloses a method for downloading a configuration file in a customer premises data communications device comprising:

receiving a configuration file in a customer premises data communications device;

operating the device with the binary file;

verifying proper operation of the binary file; and

designating the binary file as the current binary file for the hub.

The Examiner further asserts that Rasmussen does not explicitly disclose a binary file and cites the Synnestvedt reference for this missing element.

The Applicants submit that Rasmussen discloses downloading of firmware or application logic, e.g. 24. This firmware is operating code for the communication device, in this case a modem.

In the pending claims the term "binary file" means control software, see par. 0021. This is equivalent to the operating code of the Rasmussen reference.

Rasmussen teaches a process that could replace that portion of the preferred embodiment described in paragraphs 0017 through 0045 of the present specification. However, Rasmussen does not teach or suggest that portion of the preferred embodiment described in paragraphs 0046 through 0060 and covered by the present claims.

Rasmussen teaches a system in which at least two partitions or pages for storing multiple versions of the boot and operating software. Rasmussen teaches four pages 28, 30, 32 and 34, with 30 and 32 being used to store updated firmware loads, col. 6,

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lines 35-40. Page 28 stores an original boot logic 22 and application logic 24 which is never replaced or overwritten. In general, Rasmussen teaches an updating process in which a new updated firmware load is moved into the currently inactive page 30 or 32 and then the Active Page Flag in spare page 34 is changed to indicate which page 30 or 32 contains the most recent firmware.

The problem identified and solved by Rasmussen has to do with the specific process for writing updated firmware into the pages 30, 32. Rasmussen operates its system from the flash memory 8 in which the firmware is stored. At col. 2, lines 37-48, Rasmussen teaches that it is not possible to write into the flash memory at the same time as reading, and reading is required to operate the system from the flash memory. Rasmussen's solution is to first store a new update in a buffer. Then Rasmussen moves some current operating software into RAM and operates the system from RAM, rather than flash memory, while downloading the new updated firmware from the buffer into the inactive partition of Flash memory. Then the active page flag is changed and the system is rebooted. This process is described in col. 3, lines 28-45.

Rasmussen does not operate any portion of the latest update or verify operation of the update before loading it into flash memory and changing the Active Page Flag. The only check made by Rasmussen is to perform a checksum test to confirm that the update has been properly received, before writing it into flash memory, see Fig. 6a. Just because the firmware was received as sent does not mean that it will properly operate the device.

The present application describes a similar checking process in paragraphs 40-42. However, at paragraph 46 the specification describes the problem that even if the

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binary file passes the CRC test and is successfully loaded into flash memory, it may not work properly in the particular HUB. The present specification then describes a process for actually operating the new binary file on a test basis to determine if it performs certain functions, in particular communication functions. Only if it performs properly will the latest update be locked into flash, which is equivalent to setting an Active Page Flag to point to the new binary file for operating the HUB.

Independent claims 1 and 7 include "verifying proper operation of the binary file". Rasmussen does not teach this step. Rasmussen only checks to see if the file passes the checksum test, i.e. it was not corrupted in transmission. This does not verify that it will operate in the system.

Independent claim 12 includes the process of storing a message in volatile memory across a reboot process. Those skilled in the art would not expect this to work. However, as taught in the specification, this process does work in the present application in a customer premises hub. It not only works, but provides a fail safe method for testing the latest binary file download before "designating the new binary file as the currently active binary file", as covered in claim 15. Neither of the applied references teaches or suggests such a process.

In view of the substantial differences identified in the above remarks, the Applicants submit that claims 1, 7, and 12 are clearly patentable over the cited references. Since the remaining claims all depend from claims 1, 7, or 12, these dependent claims should also be patentable over the cited references.

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The Commissioner is hereby authorized to charge payment of any further fees associated with any of the foregoing papers submitted herewith, or to credit any overpayment thereof, to Deposit Account No. 21-0765, Sprint.

Applicants respectfully submit that the present application as amended is in condition for allowance. If the Examiner has any questions or comments or otherwise feels it would be helpful in expediting the application, he is encouraged to telephone the undersigned at (972) 731-2288.

Respectfully submitted,

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